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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,437	01/03/2001	Subodh K. Raniwala	40002-10217	3542

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Patent Docket Clerk  
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EXAMINER

CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/12/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/753,437	<b>Applicant(s)</b> SUBDOH K. RANIWALA	
	<b>Examiner</b> MONZER R CHORBAJI	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2002.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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This non-final office action is in response to the amendment received on 06/11/02

### DETAILED ACTION

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1-2, 5-8, 10-17, 20-22, 24-29, 33-36, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter et al (U.S.P.N. 6,326,032) in view of Carlson (U.S.P.N. 5,368,828).

With respect to claims 1, 16, and 29, Richter discloses a system (figure) and a method (columns 9-10) for sterilizing bottles (col.4, lines 46-61) using a solution including hydrogen peroxide (col.3, lines 12-13) source (104) by contacting the interior and the exterior surfaces of the bottles (col.10, lines 49-51). Also, Richter teaches of removing the sterilant (col.4, lines 39-42) from all the surfaces of the bottles using a rinsing device, after maintaining such a

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contact for a specified period of time (col.11, lines 20-21). Richter fails to disclose atomizing the sterilant, which results in the formation of a thin liquid film. However, Carlson discloses of atomizing the hydrogen peroxide such that a uniform coating of the sterilant (thin liquid film) on the interior side walls and bottom of the carton (col.3, lines 8-20). One having ordinary skill in the art would have been motivated to modify Richter's method and apparatus to include a sterilant atomizing means to achieve the desired degree of coating of the bottle surfaces (Carlson, col.4, lines 19-21).

With respect to claims 2, 17, and 30, since Carlson's apparatus uses an atomizer that impinges and dissipates the particles upon the container surface, then it is intrinsic that such a contact results in substantially wetting the surface.

With respect to claims 5-6, 20-21, and 33-34, Carlson's apparatus uses a hydraulic atomizer nozzle (col.3, lines 8-11) such that the liquid droplets are in the form of a mist (col.3, line 10).

With respect to claims 7-8, 22, and 35-36, Richter's method and apparatus result in contacting all the surfaces of a bottle (col.10, lines 49-51) such that the sterilant is introduced in a closed chamber (102).

With respect to claims 10-11, 24, and 38-39, Richter's method and apparatus include the following: heating the sterilant to a temperature between 60 degree Fahrenheit and 180 degree Fahrenheit (col.2, lines 25-26), the sterilizing agent includes hydrogen peroxide and peracetic acid (col.3, line 45), and the sterilant is an aqueous solution (col.3, line 45), which includes about

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27.5% hydrogen peroxide (col.3, lines 12-13) and about 5.8% peracetic acid (col.3, lines 16-17).

With respect to claims 12, 27, and 40, even though Richter's method and apparatus does not disclose the inversion of the bottles, however, such a step is intrinsic in order to remove the sterilizing agent from inside the bottles. Inverting the bottles before or after introduction of the sterilant is well within the scope of the one having ordinary skill in the art of designing plants for sterilizing bottles.

With respect to claims 13, 15, 25, and 28, Richter's method and apparatus include the following: the sterilizing agent is removed from the bottle surface by rinsing the bottle with water (unlabeled nozzles in 103), and the system is operated in a cold-fill liquid product filling operation (col.2, lines 51-53).

With respect to claims 14 and 26, Carlson's method and apparatus include removing the sterilant from the container surface with compressed air (col.1, lines 66-68).

4. Claims 3-4, 9, 18-19, 23, 31-32, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter et al (U.S.P.N. 6,326,032) in view of Carlson (U.S.P.N. 5,368,828) and further in view of Spisak et al (U.S.P.N. 4,566,251).

With regard to claims 3-4, 9, 18-19, 23, 31-32, and 37, both Richter and Carlson fail to disclose the formation of condensate onto the surfaces of a container. However, Spisak teaches that it is known in the art to introduce hydrogen peroxide in the form of fog (col.1, lines 20-21). In addition, Spisak discloses of introducing the sterilant in a way to promote condensation on all

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surfaces of the carton (col.1, lines 60-64 and col.5, lines 11-28). Since condensation occurs in Spisak's chamber (60a) then such a chamber intrinsically is adapted for increased temperature and pressure. One having ordinary skill in the art would have been motivated to modify Richter's method and apparatus to include a condensation step that result in an effective sterilization of bottles (Spisak, col.6, lines 5-7).

### ***Response to Arguments***

5. The Carlson reference has been added to the rejection to show it is conventional in the art to atomize the hydrogen peroxide. Also, the Spisak et al reference has been added to show that it is known to apply hydrogen peroxide as a fog.

### ***Conclusion***

6. The prior art made of record but not relied upon is considered pertinent to applicant's disclosure. Lisiecki (U.S.P.N. 3,566,575), Swank et al (U.S.P.N. 6,039,922), Swank et al (U.S.P.N. 6,183,691), Hatanaka et al (U.S.P.N. 4,797,255), Foti (U.S.P.N. 4,992,247), Duffey et al (U.S.P.N. 5,129,212), and Fabricius (U.S.P.N. 5,069,017) teach of sterilizing containers by atomizing hydrogen peroxide that result in the formation of a thin film and condensation of the sterilant

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (703) 305-3605. The examiner can normally be reached on M-F 8:30-5:00.

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8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (703) 308-2920.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305-7719 for After Final communications.

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Monzer R. Chorbaji *MRC*  
Patent Examiner  
AU 1744  
September 9, 2002

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